IN THE SPECIFICATION

Please replace the paragraph beginning at page 3, line 32, with the following rewritten paragraph:

An additional cause of the suggestion of recycling unconverted hydrocarbon present in the residual product gas mixture separately into the reaction stage might, inter alia, be the consideration of keeping the amount of gas to be recycled (and thus also the amount of starting reaction gas mixture) very low, in order, in this way, to minimize the conveyor and compressor ~~output~~ power to be employed in this connection (the recycled gas has to be recompressed to the inlet pressure of the reaction gas mixture before entry into the reaction stage, since, on the path through the reaction stage, the workup stage and the removal from the residual product gas mixture, it undergoes a pressure drop which is used to overcome the flow resistances and has to be restored) and also the required volumes. A further objective might also be to keep the feedstock losses at a minimum.

Please replace the paragraph beginning at page 4, line 4, with the following rewritten paragraph:

It is an object of the present invention to provide a process for heterogeneously catalyzed partial direct oxidation of propane and/or isobutane to at least one of the target products acrylic acid, methacrylic acid, in which the compressor ~~output~~ power to be employed and the feedstock losses are minimized in another, more advantageous manner, and, at the same time, the space-time yield is optimized with minimized energy demands.

Please replace the paragraph beginning at page 6, line 28, with the following rewritten paragraph:

The outlet pressure P^3 selected in accordance with the invention thus affects substantially the compressor ~~output~~ power for the purpose of compressing the cycle gas and the oxygen source.

Please replace the paragraph beginning at page 7, line 9, with the following rewritten paragraph:

- operation of the workup stage too at elevated pressure enables even increased amounts of cycle gas to be conveyed in comparatively small volumes required therefor and with comparatively low pressure drops incurred, since both the conveying volume of a given amount of gas and the pressure drop associated with conveying it generally decrease with increasing pressure; the latter reduces the compressor ~~output~~ power required for the cycle gas compression to the inlet pressure P^1 of the reaction stage; at the same time, an increasing amount of cycle gas compared to the output amount minimizes the losses of unconverted propane and/or isobutane present in the output;

Please replace the paragraph beginning at page 8, line 38, with the following rewritten paragraph:

The control of the pressure ratios in the process according to the invention is possible in a simple manner, for example, by means of a throttle apparatus at the outlet for the portion of the residual product gas mixture to be discharged. In the process according to the invention, in addition to the advantages already described, an expander (inverse compressor through which the discharge is effected) connected in series instead of the throttle apparatus can also be used, when discharging one portion of the residual product gas mixture by its controlled decompression to atmospheric pressure to recover a portion of the compressor ~~output~~ power required to compress the other portion of the residual product gas mixture

and/or of the oxygen source (for example air) which has been circulated to the inlet pressure P^1.

Please replace the paragraph beginning at page 25, line 9, with the following rewritten paragraph:

3. Isothermal compressor ~~output~~ power in the process according to the invention as a function of the outlet pressure P^3 at a given cycle gas ratio

Please replace the paragraph beginning at page 25, line 32, with the following rewritten paragraph:

In other words, a change in P^3 only effects the ~~output~~ power of the cycle gas compressor and the ~~output~~ power of the air compressor.

Please replace the paragraph beginning at page 26, line 5, with the following rewritten paragraph:

According to VDI-Wärmeatlas, Verlag des Vereins Deutscher Ingenieure, Düsseldorf, 5th edition, 1988, sheet La 1, the isothermal compressor ~~output~~ power of the air compressor (V^L) is:

$$V^L = \frac{\dot{m}_L}{n_L} \cdot Z_L \cdot R \cdot T_L \cdot \ln\left(\frac{P^1}{1}\right)$$

where

$\dot{m}_L$ = fresh air flow rate;

n_L = efficiency of the air compressor;

Z_L = real gas factor for air;

R = specific gas constant = ideal gas constant divided by the molar mass;

T_L = temperature at which the fresh air is aspirated from the environment;

1 = atmospheric pressure (ambient pressure) = 1 bar at which the air is aspirated;

P^1 = inlet pressure into the reaction stage to which the air is compressed;

in other words, $V^L = \dot{m}_L \cdot A \cdot \ln \cdot P^1$, where A is a constant;

in a corresponding manner, the isothermal compressor ~~output~~ power of the cycle gas compressor V^K is:

$$V^K = \frac{\dot{m}_K}{n_K} \cdot Z_K \cdot R \cdot T_K \cdot \ln \frac{P^1}{P^3}.$$

Please replace the paragraph beginning at page 26, line 31, with the following rewritten paragraph:

Therefore, for the total compressor ~~output~~ power $V_{ges} = V^L + V^K$ to be employed:

$$V_{ges} = \dot{m}_L \cdot A \cdot \ln \cdot P^1 + \dot{m}_K \cdot A' \ln \frac{P^1}{P^3}.$$

$P^1 - P^3 = C \cdot \frac{1}{P^1}$, where C is a constant which is characteristic for the reaction and workup apparatus used, and

$\frac{\dot{m}_K \cdot A'}{\dot{m}_L \cdot A} \approx \frac{\dot{m}_K}{\dot{m}_L} = K_r$ = cycle gas ratio combined to give:

$$V_{ges} = \dot{m}_K \cdot A \cdot \left[\left(1 + \frac{1}{K_r} \right) \ln \left(\frac{P^3}{2} + \sqrt{\left(\frac{P^3}{2} \right)^2 + C} \right) - \ln P^3 \right].$$

Please replace the paragraph beginning at page 27, line 24, with the following rewritten paragraph:

Starting from $P^3 = 1.5$ bar, the compressor ~~output~~ power to be employed overall increases with increasing P^3 in both cases, which proves the advantageousness of the inventive procedure.

DISCUSSION OF THE AMENDMENT

The specification has been amended by changing "output" to --power--, where applicable, to correct a translator's error. The change is supported by the German priority application as well as the corresponding German language WO 2004/089856 and Fig. 3 herein, which uses the unit "MW" for Vges, wherein V stands for "power" (energy per time).

Claims 1-32 remain pending in the application.